

IN THE CLAIMS

Each claim of the present application is set forth below with a parenthetical notation immediately following the claim number indicating the current claim status. The Examiner's entry of the claim amendments, as shown in marked-up form, under Section 1.121 is respectfully requested.

1. (CURRENTLY AMENDED) A method for identifying destination nodes of a multicast session in a network having a plurality of nodes, comprising:

forming a ~~physical address queue comprising~~ a circularly linked list further comprising a list plurality of destination nodes, ~~entries~~ each destination node entry having an associated destination address for receiving multicast data and a link to a next destination node in the list for processing;

~~identifying an address for~~ entering the list at an initial destination node; ~~entry~~;

traversing the linked list to process each destination node, for each destination node, sending the multicast data to the associated destination address nodes and using the link to determine the next destination node for processing; and

terminating the traversing step when all linked destination nodes have been processed.
~~prior to reaching the initial destination node entry.~~

2. (ORIGINAL) The method of claim 1 further comprising receiving data intended for transmittal to the identified destination nodes of the multicast session.

3. (CURRENTLY AMENDED) The method of claim 2 wherein the initial destination node ~~entry~~ is determined from the received data.

4. (ORIGINAL) The method of claim 2 wherein at least one destination node of the list, as determined from the received data, is excluded from the multicast session.

5. (ORIGINAL) The method of claim 4 wherein the received data includes an indicator identifying the destination node that is to be excluded from the multicast session.

6. (ORIGINAL) The method of claim 5 wherein the indicator identifies the destination node from which the data was received as the destination node to be excluded from the multicast session.

7. (CURRENTLY AMENDED) The method of claim 1 wherein the initial destination node ~~entry~~ is predetermined.

8. (CURRENTLY AMENDED) The method of claim 1 further comprising receiving data intended for transmittal to the identified destination nodes of the multicast session on an input port, and wherein the initial destination node ~~entry~~ is determined based on the input port.

9. (PREVIOUSLY PRESENTED) The method of claim 1 wherein the address for entering the list is the destination node from which the data was received.

10. (CURRENTLY AMENDED) The method of claim 1 wherein the traversed destination nodes ~~entries~~ are the identified destination nodes of the multicast session.

11. (CURRENTLY AMENDED) The method of claim 1 wherein destination nodes ~~entries~~ for a plurality of multicast sessions are interleaved in ~~the~~ a list, and wherein the destination nodes ~~entries~~ for each one of the plurality of multicast sessions are circularly linked .

12. (CANCEL)

13. (CURRENTLY AMENDED) The method of claim ~~14~~2 wherein the link ~~information~~ comprises a pointer at each destination node ~~entry~~ that points to another destination node ~~entry~~ such that the plurality of destination nodes ~~entries~~ are circularly linked.

14. (CURRENTLY AMENDED) A method for identifying the destination nodes for a multicast session in a network having a plurality of nodes, comprising:

forming a multicast group list comprising a ~~physical address~~ queue further comprising a circularly linked ~~list plurality~~ of destination nodes, ~~entries~~, wherein each destination node ~~entry~~ includes link information and an associated destination node address for receiving multicast data;

receiving data intended for transmittal to the destination nodes of the multicast session;

entering the list at an initial destination node ~~entry~~ as determined from the received data;

traversing the list according to the link information of each destination node in the list and ~~for~~ sending the multicast data to the associated destination nodes address for each destination node in the list;

determining when the traversing step returns to the initial destination node entry; and terminating the traversing step in response to the step of determining, ~~prior to reaching the initial destination node.~~

15. (CURRENTLY AMENDED) An apparatus for identifying destination nodes of a multicast session in a network having a plurality of nodes, comprising:

a circularly linked list ~~comprising a physical address queue~~ further comprising a list plurality of destination nodes, ~~entries~~, wherein the contents of each destination node ~~entry~~ includes an associated destination node address, list linking information and data transmission parameters;

a processing engine for identifying an initial destination node entry for entering the list and for traversing the linked list according to the list linking information until the initial destination node entry is reached, ~~to~~ at each destination node the processing engine sending multicast session data to the associated destination node address according to the data transmission parameters; and

the processing engine terminating the traversing process, ~~step prior to reaching the initial destination node entry.~~